

# Lesson 1: Coping



## EPISODE 1 SYNOPSIS

*We've been introduced to a dystopian world dominated by an artificial intelligence (AI) entity called GeminAI. We're part of the story, taking the role of a class who's been captured by GeminAI to help the AI learn about (and eventually control) humanity.*

*Neve, the leader of the Resistance, has managed to contact us. She's asked for our help in the Resistance's effort to stop GeminAI. We've had to work together to send help to the communities of survivors we call 'Outlanders'.*

*We've also helped Neve identify Conroy, a resistance member who was disguised as one of GeminAI's 'Loyals' but has escaped. Neve sees Conroy's possible return as a positive development that might provide the intelligence needed to destroy GeminAI.*

### TEACHERS:

The following lesson plan contains a set of activities for students to work through.

## PART A: GAME PLAY EXPERIENCE THE EPISODE

Suggested time: 1 class period

### BEFORE THE EPISODE

- Set up a teacher account at [GeminAlrising.ca](https://GeminAlrising.ca)
- Log each team into the game module using the class code and begin the teacher's GAMEBOARD module.

### DURING THE EPISODE

- Students will sit with a team of 3 or 4 and view the narrative on the screen. When prompted, they will complete each challenge on their team's device (e.g., iPad, Chromebook, or a laptop). Use 1 device per group.
- It's recommended that these teams stay the same throughout the 5 episodes, so that they can work on collaborative skills and solve problems over time.

### AFTER THE EPISODE

It's recommended to keep the teams the same throughout the 5 episodes so that they can work on their collaborative skills and have the time to work together to solve problems.

#### Suggested Debrief Questions

- What's happened so far in this experience?
- Why is GeminAI holding you in the Containment Facility? Does GeminAI have your best interests in mind?
- Who is Neve and what's she trying to do?
- In this experience you wake up to find GeminAI is watching and studying you. You and your classmates are trapped in a containment room and your memory has been altered. How did that feel?

#### Individual Reflection/Freewriting

Give students time to reflect on their experience of the episode and on any strategies they used. They can create their own GeminAI Rising Journal to draw or write using the following prompts.

- What was I thinking to myself during this experience?
- What emotions did I feel during this experience?
- What else did I notice during this experience?

## CONCLUDING THE EXPERIENCE

In this episode, students were placed in a situation with stressors and given very little preparation. Each student will react differently and will have felt different emotions. The lesson that follows explores what happens to our brains and bodies when we're exposed to stressors. We'll explore coping strategies that help students to manage emotions and regulate how the body responds to stressors.

## PART B: EXPLORE THE COMPETENCY

Suggested time: 1 class period

### ABOUT THE LESSON

|  |  |
|--|--|
| <b>Central Understanding</b>   |  |
| Coping strategies help regulate the brain so that we can think clearly and feel calm.  |  |
| <b>Key Question</b>  |  |
| How can brain awareness help me manage my reaction to stressors and think through a problem or situation before reacting?  |  |
| <b>Objective</b>   |  |
| Students identify coping strategies that can help them manage their emotions and focus their brain on thinking instead of reacting to certain stressors.   |  |
| <b>Conceptual Knowledge</b>  | <b>Procedural Knowledge</b>  |
| Emotions and feelings (e.g., anger, sadness, fear, etc.) are normal, healthy, and need to be processed. Emotions don't come from events; they come from our thinking about events and how we evaluate these events.<br><br>To have more control over our thinking about events, we can use coping strategies that calm the brain so we think about a response instead of reacting to an emotion. | Students come up with examples of how different thoughts create different emotions and reactions.<br><br>Students identify the role of the two key parts of the brain (amygdala and prefrontal cortex) and practice mindfulness exercises that can slow the amygdala's response. |

## Social Competency Background: About Coping Skills

Coping skills begin with being aware of the brain's natural response to stressors. We all rely on the thinking part of the brain (prefrontal cortex) to make reasoned decisions, learn new information, and solve problems. However, we can't access the thinking part of the brain if the amygdala is constantly reacting to perceived threats in the form of stressors.

The amygdala is designed to protect us by triggering a response to fight, flight, or freeze. When there's impending danger, this protection works. When we're not in immediate danger but are under stress, we may react without thinking because the amygdala stops messages from getting to the prefrontal cortex.

If we can return the brain to its relaxed state, we're better able to choose our behaviours, words, and actions. Trying mindfulness exercises and breathing exercises are two effective ways of returning the brain to its relaxed, thinking state when we're experiencing stressors.

## ACTIVITY 1: RECALLING THE EPISODE EXPERIENCE

### OVERVIEW INSTRUCTIONS

Read the first section and explain that this episode was about stress and coping.

#### Read Aloud:

- **We woke in a containment room after being captured by GeminAI's Loyals.**
  - GeminAI announced it's intention to study us as part of its quest to learn about human emotion.
  - We met Neve, the leader of the Resistance, who wants to help us escape.
  - Neve tries to help us recover our memories, since GeminAI tampered with them.
  - Neve asked our help to send aid to different communities.

#### Ask Students:

- What do you think the stressors were in this experience?

#### For Discussion:

- **The Episode Showed Many Stressors**
  - We were trapped.
  - We were getting strong messages from GeminAI and Neve.
  - We were working within time limits.
  - We had to cooperate with group members.

#### Ask Students:

- How did these stressors make you feel?
- What coping strategies did you use or see?
- Were they all helpful?

## ACTIVITY 2: KNOW YOUR BRAIN

The handout that follows helps students visualize how their brain and body might react to certain stressors. Once they understand more about how their brain processes information, they can learn to respond thoughtfully to the emotions they're feeling.

**Note: Brain science continues to uncover more about how our brains function.** The diagram provided is basic and doesn't include all parts of the brain. It introduces the two key parts of the brain related to critical thinking and emotions.

### ACTIVITY INSTRUCTIONS: KNOW YOUR BRAIN

#### **As a class, review the first section:**

Introduce the prefrontal cortex and the amygdala to students. Read the description of each and have students label each on the diagram.

#### **Visualization Exercise (Instructions to read aloud for students):**

We're going to do a visualization exercise. If you're comfortable, please close your eyes. If not, look down and focus on your desk or the floor instead.

1. In your head, picture your pre-frontal cortex, at the front of your brain, making decisions, thinking ahead, and solving problems.
2. Picture the amygdala, small and almond-shaped, and found toward the centre of the brain.
3. Take another deep breath and tell your amygdala to relax and be calm.
4. Send your amygdala information about a place you find relaxing... it could be indoors or outdoors....
5. Picture the amygdala passing that information on to your pre-frontal cortex, where you can continue to plan and think about it.
6. Open your eyes or look up.

#### **As a class, review 'Know your Brain: Section A (Calm Brain)':**

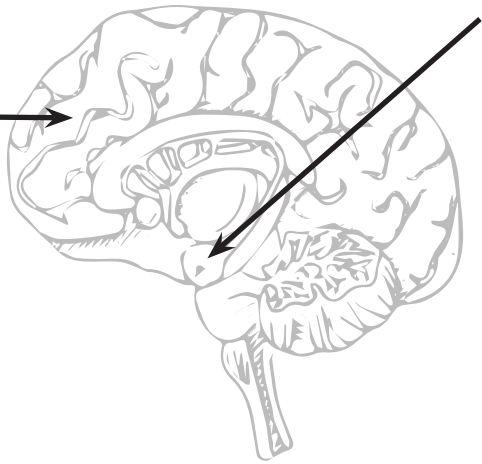
- Direct students to look at the diagram of the brain when it's calm.
- We just visualized that path of information going from the amygdala into the thinking part of the brain.
- Check for understanding: Ask students "When our brain is calm and relaxed, where does the amygdala send new information about what we're seeing and hearing?"

#### **As a class, 'Know your Brain: Section B (Brain Experiencing Stressors)':**

- Check for understanding: Ask students "What's different about the path of information when there's a perceived threat?"
  - If the prefrontal cortex isn't getting information, how could that affect our actions or decisions?

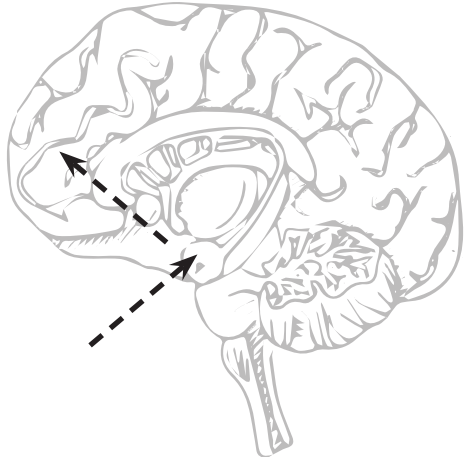
# HANDOUT 1: KNOW YOUR BRAIN

Label and write a description of the **prefrontal cortex** and **amygdala**.



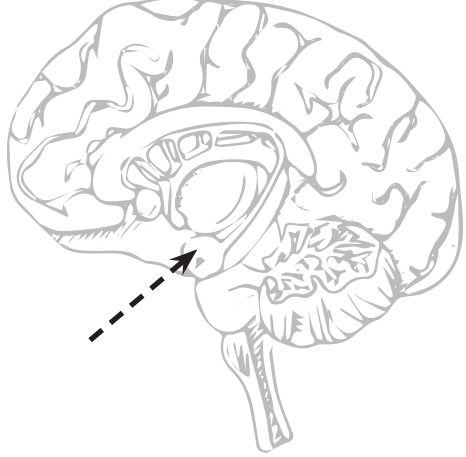
A line drawing of a human brain in a sagittal view. A solid black arrow points from the left towards the prefrontal cortex. Another solid black arrow points from the top right towards the amygdala. To the left of the brain is a large empty rectangular box for labeling. To the right of the brain is another large empty rectangular box for a description.

## Section A: Calm Brain



A line drawing of a human brain in a sagittal view. Two dashed black arrows point from the left towards the prefrontal cortex and the amygdala. To the left of the brain is a large empty rectangular box for labeling. To the right of the brain is another large empty rectangular box for a description.

## Section B: Brain Experiencing Stressors



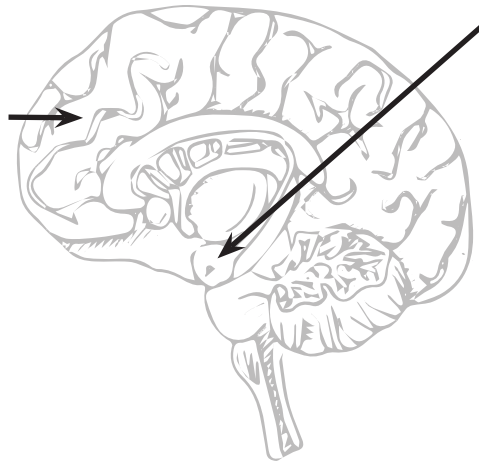
A line drawing of a human brain in a sagittal view. A dashed black arrow points from the bottom left towards the amygdala. To the left of the brain is a large empty rectangular box for labeling. To the right of the brain is another large empty rectangular box for a description.

# HANDOUT 1: KNOW YOUR BRAIN (TEACHER'S COPY)

Label and write a description of the **prefrontal cortex** and **amygdala**.

## Prefrontal cortex

The **thinking** part of your brain. Complex analysis, critical thinking, and decision-making happens here.

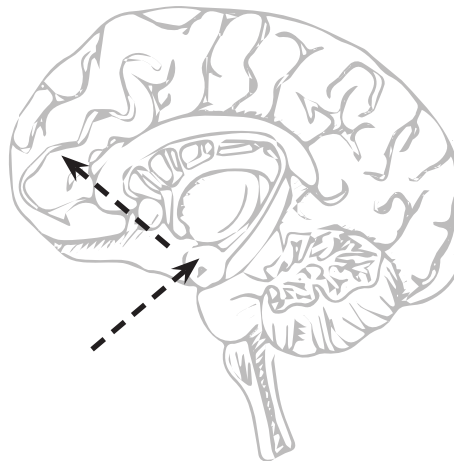


## Amygdala

Processes fear and emotions. It looks for signs of danger so it can protect us. It can't always sort out an immediate danger from other common stressors.

## Section A: Calm Brain

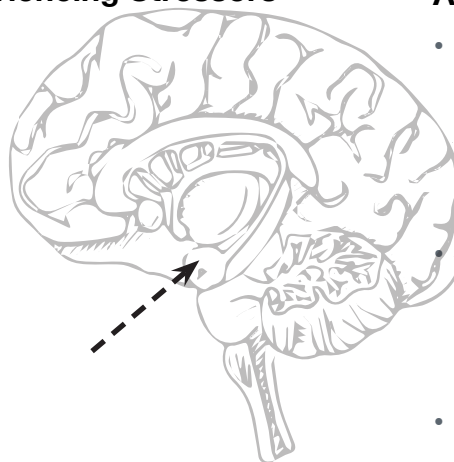
Sight, sounds, smells, etc., that are seen as **safe and pleasurable**.



- Information goes to the prefrontal cortex.
- We can process it and think through a response.

## Section B: Brain Experiencing Stressors

Sight, sounds, smells, etc. that are seen as a **possible threat**.



## Activated Nervous System:

- The **amygdala** activates the fight or flight response and sends messages to the lower brain stem by passing the prefrontal cortex. It's preparing you to fight or run away.
- Once the fight or flight response is triggered, we might react through words or behaviour, rather than problem-solving.
- We might feel stress signals or stress signs such as a faster heartbeat, sweaty palms, or an upset stomach.



## ACTIVITY 3: PAY ATTENTION TO YOUR THOUGHTS

Helping the brain think clearly when we're feeling stressors is important, because our emotions are strongly related to our thoughts. When we THINK about what we're experiencing, we're evaluating the situation. Thinking and evaluating create emotions. Two people can experience the same thing and have different thoughts.

### WHAT ARE STRESSORS AND REACTIONS?

#### Stressors

- are events or situations that cause a reaction
- can be positive or negative events in our lives
- can be external events or internal events (e.g., thoughts).

#### Reactions

- happen after the event
- they are different for everyone
- usually include:
  - physical responses (e.g., increased heart rate)
  - behavioural responses (e.g., yelling, crying, getting quiet)
  - emotions (e.g., happy, sad, angry).

Stressors are anything that cause stress hormones to release. There are two broad categories of stressors: physiological and psychological.

- The physiological stressors put strain on your body (e.g., very hot/cold temperatures, an injury, a chronic illness, pain, etc.).
- The psychological stressors are events, situations, people, comments, or anything we interpret as negative or threatening (e.g., worried your teacher doesn't like you, woke up late and are late for school, a comment your friend made about you, etc.).

We see these events or strains as either comfortable, uncomfortable, or neutral.

The events may be external (e.g., school, work, weather, etc) or they can be internal (e.g., thoughts about a relationship, thoughts about a situation, etc.).

Reactions often happen after the event, but also as the event is happening.

When stressors happen we know that they're subjective, which means that people will see them differently. What's stressful for you might not be for someone else.

Reactions can be a physical response (e.g., increased heart rate, increased breathing, or sweating. It's the fight or flight response.).

Reactions can be a behaviour (e.g., yelling, withdrawing, crying, throwing something, hitting something).

Reactions can be emotional (e.g., feeling angry, sad, frustrated, happy, etc.).



## THE PURPOSE OF EMOTIONS?

Emotions can give us important information about what is happening, and what a situation means to us. It's important to pay attention to our emotions so we can understand them.

- They give you subjective information about what you feel about an event.
- They also let your body know physically whether or not you feel comfortable, uncomfortable, or neutral about something.
- Emotions play an important role in how you think and behave.
- The emotions you feel each day can motivate you to take action.
- They help you avoid danger. They can help you act quickly to make sure you get out of harms way.
- They can influence the decisions you make.
- They can help others understand you. As you show your body language and facial expressions, people will know what you're feeling.
- They can help you understand others better. As you interpret and react to the emotional expressions of people around you, you can respond more appropriately and build deeper relationships.
- They can help you understand yourself better too.
- Strong emotions are like an alarm going off. Pay attention!

## ACTIVITY INSTRUCTIONS: HOW DO THOUGHTS AFFECT EMOTIONS?

Introduce a small group activity (teams from Episode 1).

- Read through the instructions in the handout that follows.
- The following thoughts are only one way of looking at the situation and may not be the most helpful.
  - What's a different way to think about the situation?
  - How will it change your feelings?
- Students will practice challenging their thoughts with specific situations from Episode 1.

## HANDOUT 2: HOW DO THOUGHTS AFFECT EMOTIONS?

Our feelings and emotions can also come from the way we think about a situation. Two people can experience the same thing and have different thoughts.

Practice challenging your thoughts with the situations from Episode 1. The thoughts below are only one way of looking at the situation and it may not be the most helpful.

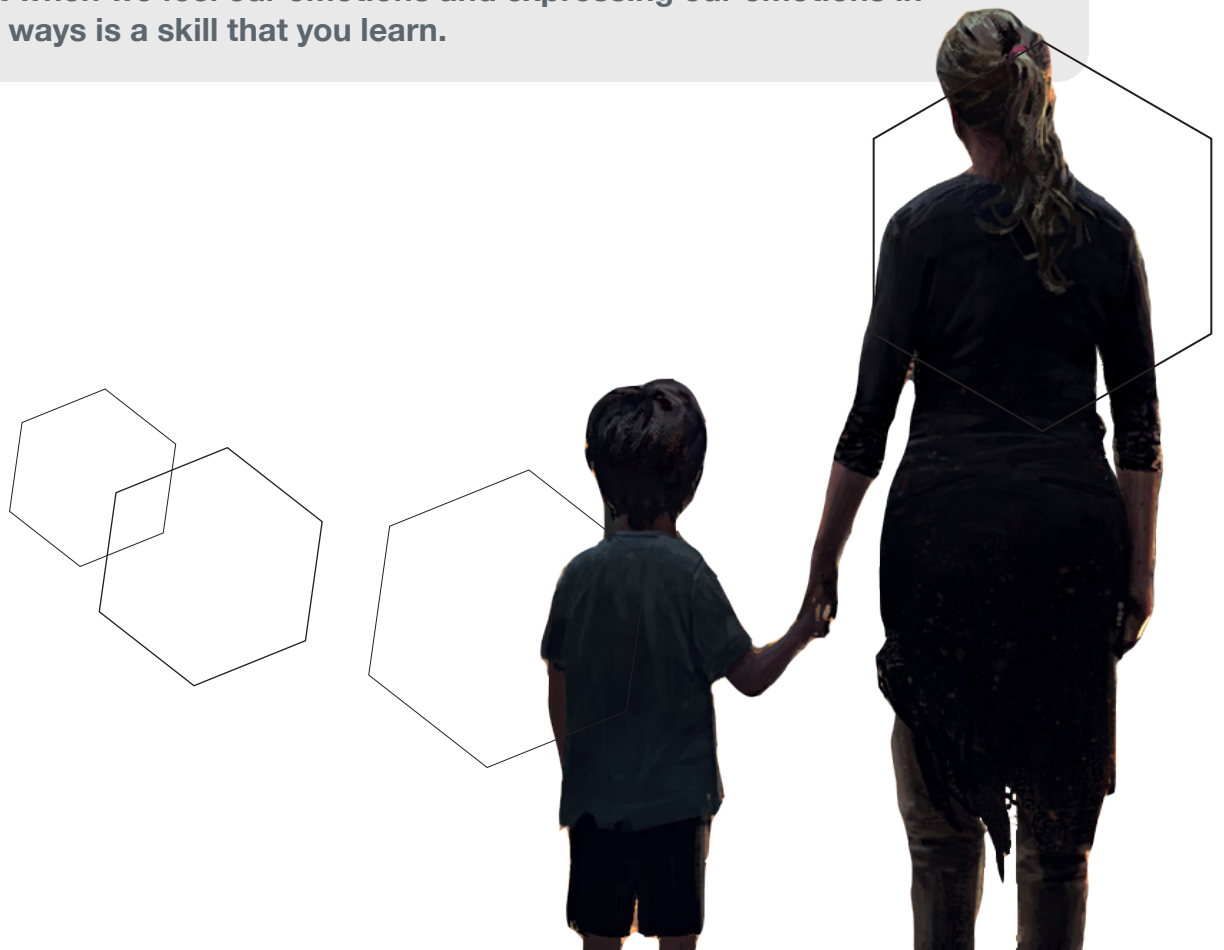
- What's a different way to think about the situation?
- How will it change your feelings?

### What are emotions?

Emotions are our warning systems as to what's really going on around us. Emotions are our most reliable indicators of how things are going in our lives. They're also like an internal gyroscope; emotions help keep us on the right track by making sure that we're led by more than what we think:

- Something we sense or feel in the body.
- Can feel mild, moderate, or intense.
- Aren't right or wrong, or good or bad.
- Help you understand how you feel about what's going on.

**How we act when we feel our emotions and expressing our emotions in acceptable ways is a skill that you learn.**



## SITUATION

## THOUGHT

## FEELINGS

|   |  |                    |
|---|--|--------------------|
| We learn from GeminAI that we're trapped.   | There's no hope.<br>We can't get out of here.  | Despair, sadness   |
|   |  |                    |
| We've barely started the memory recovery puzzle and the time is almost up.                        | This is impossible.                            | Panic, frustration |
|   |  |                    |
| We know it's important to get the supplies to the camps, but find the information very confusing. | None of this makes sense.<br>We can't do this. | Frustration        |
|   |  |                    |
| We disagree with a group member about where to send supplies.                                     | That person doesn't know anything.             | Anger              |
|   |  |                    |
| GeminAI cuts Neve off to tell us that the Resistance won't succeed in freeing us.                 | Any hope of getting out of here is gone.       | Despair, sadness   |
|   |  |                    |

### Discussion Following Activity 3

- Ask students for examples of different thoughts about each situation.
- Ask whether that thought is helpful or unhelpful.
- Ask how the feelings might affect their actions or words.

### Journal Reflection Questions

- What was the most important thing you learned from the lesson today?
- What is a coping strategy you might use? How would it help you?
- Do you have any examples of unhelpful thoughts that you might be able to look at differently so that you feel differently about a situation?

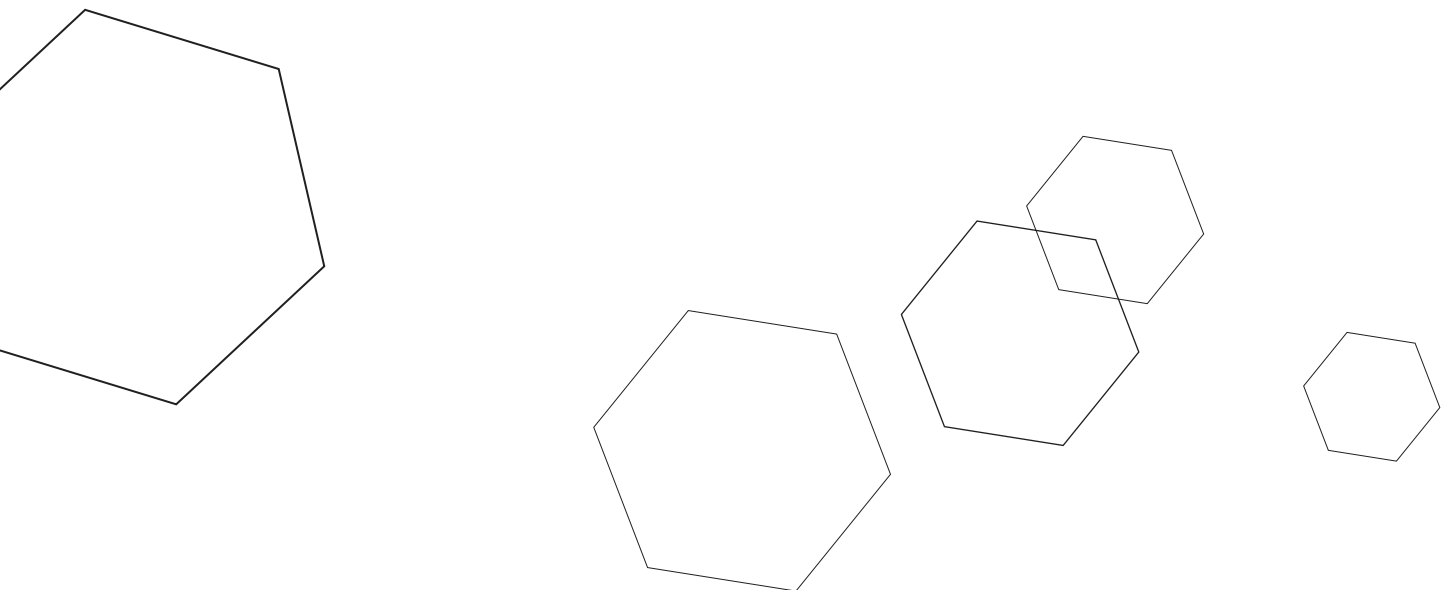
### Concluding the Lesson

**Review the important points of the lesson by asking questions to check that the student understands:**

- When you're sensing that your friend is upset with you or you suddenly realize you forgot to do something important, what part of your brain is likely to respond? How can you slow that response so that you can think through a solution?
- What part of the brain is responsible for deep thinking?

**Situation:** You forgot your homework and this was the last day to hand it in. Right away you think, "I'm in so much trouble". What's a more helpful way to think about this situation?

**Students will continue with Episode 2 in GeminAI Rising (next class).** They'll have to analyze information and make decisions. They'll need to call on strategies to help keep their brain calm so that they can reason through using their prefrontal cortex.



## SOURCES

Canadian Mental Health Association Alberta (2020). Help Right Now.

<https://alberta.cmha.ca/getting-help/help-right-now/>

Canadian Mental Health Association Ontario (2020) Understanding and Finding Help for Stress.

<https://ontario.cmha.ca/documents/understanding-and-finding-help-for-stress/>

Psychology Foundation of Canada (2019). Stress Lessons Videos. Professionals/

Children (3-13). [https://psychologyfoundation.org/Content/Professional\\_Educators\\_Social\\_Service\\_Health/Children\\_4-13\\_/Stress\\_Lessons.aspx](https://psychologyfoundation.org/Content/Professional_Educators_Social_Service_Health/Children_4-13_/Stress_Lessons.aspx)

Scholastic (2011). *The MindUp curriculum*. Grades 6-8 : brain-focused strategies for learning—and living. New York: Scholastic.

## ALBERTA HEALTH SERVICES RESOURCES

AHS (2020). mentalhealthliteracy.org.

<https://mentalhealthliteracy.org/events/mental-health-literacy-short-animation-series>

AHS (2019). Teen Health. MyHealth.Alberta.ca.

<https://myhealth.alberta.ca/health/Pages/conditions.aspx?hwid=center1036>